

Application No. 09/917,438

REMARKS

Claims 1, 3-8, 10-14, and 19-20 are pending. By this Amendment, claims 1 and 8 are amended, and new claims 21 and 22 are added. New claims 21 and 22 refer to features removed from claims 1 and 8. No new matter is introduced by the amendments.

The previous claims had been allowed. Upon post allowance review of the claims, it was realized that the present claims above are more appropriate expression of Applicants' invention. Applicants respectfully request consideration of the presently amended claims based on the comments below. The comments are references to the rejections in the Office Action of December 20, 2005.

Applicants thank the Examiner for the courtesy extended to their undersigned representative in a phone conference on Thursday, June 29, 2006. In particular, Applicants' representative asked the most appropriate procedure for obtaining entry of the above noted amendments. While the Examiner presented several options, Applicants decided to follow the RCE route to proceed with this application.

Rejection over Nishimoto under 35 U.S.C. § 103

The Examiner had rejected claims 1, 7, 8, and 14 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,408,569 to Nishimoto (Nishimoto). The cited reference, Nishimoto, does not establish a prima facie case of obviousness of Applicants' claimed invention, as the reference does not teach, suggest, or motivate all of the features included in claims 1 or 8, as amended. Prima facie obviousness is not established if all the elements of the rejected claim are not disclosed or suggested in the cited art. In re Ochiai, 37 USPQ 1127, 1131 (Fed. Cir. 1995). ("The test for obviousness *vel non* is statutory. It requires that one compare the claim's 'subject matter as a whole' with the prior art 'to which said subject matter pertains.'"). See also, MPEP § 2143.03 "All Claim Limitations Must Be Taught or Suggested," citing In re Royka, 180 USPQ 580 (CCPA 1974). "To establish prima facie obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art." MPEP § 2143.03.

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As stated, Nishimoto does not teach, suggest, or motivate all of the features included in claims 1 or 8, as amended. Specifically, Nishimoto does not teach, suggest, or motivate controlling flow rates to reduce crystallization areas within the top clad layer or to provide refractive index stability to the top clad layer across an anneal temperature range from 900 °C to 1050 °C. Rather, Nishimoto merely teaches reflowing a GeBPSG cladding layer at a temperature of about 750 °C. In doing so, Nishimoto distinguishes a PSG cladding layer (layer not comprising a Ge dopant) by pointing out that the PSG cladding layer has a reflow point of about 1000 °C. See, e.g., U.S. Patent No. 5,408,569 at column 3, lines 36 to 53. As such, it can be seen that Nishimoto does not teach, suggest, or motivate BPG doped silica glass formed to reduce or prevent crystallization formation in the cladding layer or to provide refractive index stability to the top clad layer.

With respect to specific features noted by the Examiner in claims 7 and 14 depending from claims 1 and 8, respectively, these issues are not commented on further here because they are presently moot given the above analysis, although Applicants do not acquiesce in the Examiner's position. As such, Applicants respectfully request withdrawal of the rejection of claims 1, 7, 8, and 14 as being unpatentable over Nishimoto.

Rejection over Nishimoto and Russell under 35 U.S.C. § 103

The Examiner rejected claims 2-6, 9-13, and 18-20 under 35 U.S.C. § 103(a) as being unpatentable over Nishimoto in view of U.S. Patent No. 5,648,175 to Russell, et al. (Russell). The deficiencies of Nishimoto with respect to claims 1 and 8 were discussed in detail above. Russell does not make up for these deficiencies. Specifically, like Nishimoto, Russell does not teach, suggest, or modify controlling a flow rates for a Ge dopant gas, P dopant gas, and B dopant gas to form a top clad layer to reduce crystallization areas within the top clad layer. Nor does Russell teach, suggest, or motivate controlling the flow rates to provide refractive index stability to the top clad layer across an anneal temperature range from 900 °C to 1050 °C. Rather, Russell merely teaches reflowing a GeBPSG film at a temperature of about 800 °C and a

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BPSG film at a temperature of about 700 °C to 800 °C. Therefore, the combined teachings of the Nishimoto and Russell do not render claims 3-6, 9-13, and 19-20 prima facie obvious, as the cited references do not teach, suggest, or modify all of the features included in the claims.

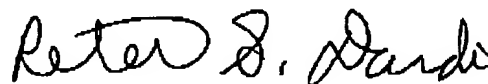
Because the combined teachings of Nishimoto and Russell do not render Applicants' invention prima facie obvious, Applicants respectfully request withdrawal of the rejection of claims 3-6, 9-13, and 19-20 under 35 U.S.C. § 103(a) as being unpatentable over the Nishimoto in view of Russell.

## CONCLUSION

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,



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